TWO OF THE AUTHORS REPLY

We thank Sioka et al. for their letter (1) and their interest in our paper (2). We are in agreement with these and other authors (3, 4) that while the risk of some specific malignancies may be at least partly due to the iatrogenic effects of thyroid cancer treatment, the occurrence of second primary malignancies at many sites is probably due primarily to shared environmental or genetic risk factors. We would like, however, to raise several cautions regarding interpretation of the data presented by Sioka et al. (1).

First, referral bias should be taken into account when interpreting results from a case series of patients. Second, caution should be exercised in interpreting results related to an exposure, such as iodine-131 treatment, when there is no unexposed group included in the analysis. Third, sufficient statistical power is a nonnegligible problem when assessing second malignancies following a relatively rare tumor. While we saw no evidence of radiation-induced secondary primary malignancies, our power to detect such effects was limited, even with approximately 2,500 irradiated patients followed for more than 5 years; fewer than five second primary malignancies were observed for many sites within this subgroup (2). Fourth, when examining preexisting cancers, survival bias and (in case series) selection bias are of particular concern.

A stronger method for examining the effects of thyroid cancer risk following the diagnosis of another cancer, such as breast or colon cancer, would be to identify a population diagnosed with the “preexisting” cancer of interest and then follow these persons up to assess the risk of a second malignancy occurring in the thyroid gland, as was done by Ronckers et al. (3). Nonetheless, we appreciate the additional information provided by Sioka et al. (1).

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REFERENCES


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